

Mineral Industry Surveys

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NICKEL IN FEBRUARY 1998

Reported domestic nickel consumption in February, on a daily average basis, was 4% more than that of January, according to the U.S. Geological Survey. Daily usage by the stainless steel industry was up 5% from the January average of 107 metric tons (t). Consumption of elemental nickel to make nickel-base corrosion resistant alloys also grew and was up almost 15%. However, these increases were partially offset by an 18% decrease in consumption of nickel to make alloy steels. Sales to plating companies averaged 39 t per day, slightly more than the January sales figure. Percentages reported in this paragraph may not be verifiable owing to concealment of company proprietary data.

On February 28, U.S. consumer stocks of cathode, briquets, and powder totaled 5,090 t and were down 4% from the 5,310 t held at the end of January. Stocks in London Metal Exchange warehouses increased slightly to 65,826 t but were down 2% from the 2-year high of 67,056 t reached on November 13.

The United States imported 16,800 t of primary nickel in January, about 18% more than the tonnage for December 1997. About 88% of the material was in some form of the pure metal (i.e., cathode, pellets, briquets, powder, etc.) Trade data for February 1998 will appear in a subsequent issue.

Inco decides not to sell alloys business to Haynes

In June 1997, Inco Limited agreed to sell its alloys business unit to Haynes Holdings Inc. for about \$410 million (Inco Limited, 1997). However, the sale was subject to a number of conditions, including antitrust clearance from the U. S. Department of Justice and approval

from other regulatory authorities.

The business unit in question, Inco Alloys International (IAI), is one of the leading developers and producers of wrought nickel-base alloys. IAI has been supplying superalloys to the aerospace industry for more than 40 years from its plant in Huntington, WV. The unit also has operations in Hereford, England; Burnaugh, KY; Elkhart, IN; and Newton, NC. Haynes Holdings Inc. is an affiliate of Blackstone Capital Partners II Merchant Banking Fund L.P. and the parent of Haynes International Inc., an Indiana-based producer of high performance alloys.

On March 3, 1998, Inco and Haynes mutually agreed to terminate the transaction because, they stated, there was opposition from the Justice Department (Haynes International Inc., 1998; Inco Limited, 1998). Inco was to have used the proceeds of the sale for general corporate purposes, including the repayment of debt and the repurchase of its common stock from the open market.

References Cited

Haynes International Inc., 1998, Haynes Holdings makes announcement: Haynes International Inc. Press release, 1 p. (Accessed April 24, 1998, on the World Wide Web at URL <http://www.haynesintl.com/Finan/Pressrel.htm>).

Inco Limited, 1997, Inco Limited announces agreement to sell its alloy business to an affiliate of Blackstone Capital Partners: Inco Media Information, press release no. 10/97, June 11, 2 p.

———1998, Inco Limited announces termination of agreement to sell its alloys business: Inco Limited, press release to Canada News Wire, 1 p. (Accessed April 24, 1998, on the World Wide Web at URL <http://www.newswire.ca/releases/March 1998/03/c0606.html>).

TABLE 1
CONSUMPTION OF NICKEL (EXCLUSIVE OF SCRAP), BY FORM AND USE 1/

(Metric tons, nickel content)

Period	Cathodes, pellets, briquets, and powder	Ferronickel	Oxide-sinter, salts, and other forms	Total	Total year to date
1997:					
February	6,190	1,510	137	7,840	17,100
March	5,970	1,580	262	7,820	24,900
April	6,840	1,490	577	8,910	33,800
May	6,840	1,300	412	8,550	42,400
June	6,890	1,280	462	8,630	51,000
July	6,840	1,640	301	8,780	59,800
August	6,390	1,460	175	8,020	67,800
September	5,890	1,470	307	7,670	75,500
October	6,570	1,540	332	8,450	83,900
November	6,180	1,370	244	7,790	91,700
December	6,940 r/	1,330	380	8,650 r/	100,000
January-December	78,700	18,000	3,700	100,000	XX
1998:					
January	6,690 r/	1,410	424	8,530 r/	8,530 r/
February:					
Steel:					
Stainless and heat resisting	2,070	1,070	W	3,130	6,500
Alloy (excludes stainless)	400	W	W	400	1,380
Superalloys	1,010	--	W	1,010	2,230
Copper-nickel alloys	W	W	W	W	880
Electrical, magnetic, and expansion alloys	W	--	--	W	58
Other nickel & nickel alloys	1,360	--	W	1,360	W
Cast iron	--	--	W	W	W
Electroplating (sales to platers)	1,100	--	W	1,100	2,300
Chemical and chemical uses	W	--	W	W	W
Other uses	628	96	314	1,040	3,230
Total reported	6,570 2/	1,160	314	8,040	16,600
Total all companies (calc) 3/	XX	XX	XX	12,100	25,000
1998: January-February	13,300	2,580	741	16,600	XX
1997: January-February	13,300	3,510	244	17,100	XX

r/ Revised. W Withheld to avoid disclosing company proprietary data; included in "Other uses" category. XX Not applicable.

1/ Data are rounded to three significant digits; may not add to totals shown.

2/ Of consumption, 5,560 metric tons were consumed as cathodes and pellets, the remainder as briquets and powder.

3/ Figures represent calculated apparent consumption; based on the revised proportion of reported primary consumption (66.21%) to apparent primary consumption for 1996.

TABLE 2
ENDING STOCKS OF NICKEL (EXCLUSIVE OF SCRAP) HELD BY CONSUMERS,
BY FORM AND USE 1/ 2/

(Metric tons, nickel content)

Period	Cathodes, pellets, briquets, and powder	Ferronickel	Oxide-sinter, salts, and other forms	Total
1997:				
February	4,110	231	196	4,540
March	4,150	240	620	5,010
April	3,900	366	649	4,910
May	3,370	344	592	4,300
June	4,000	389	307	4,690
July	4,750	401	139	5,290
August	5,220	304	169	5,690
September	6,130	447	220	6,800
October	5,290	271	145	5,710
November	4,210	190	154	4,550
December	6,420	1,340	375	8,140 r/
1998:				
January	5,310 r/	952	230 r/	6,500 r/
February:				
Steel (stainless, heat resisting and alloy)	3,220	546	(3/)	3,770
Nonferrous alloys 4/	1,620	--	(3/)	1,620
Foundry (cast irons)	3	--	(3/)	4
Chemical (catalysts, ceramics, plating salts, etc.) and unspecified uses	241	--	174	415
Total	5,080	546	174	5,800

r/ Revised.

1/ Data are rounded to three significant digits; may not add to totals shown.

2/ Stocks held by companies that consume nickel in more than one end use category are credited to the major category. Stocks are subject to revisions owing to inventory adjustment.

3/ Included in "Chemical and unspecified uses" category.

4/ Includes superalloys, nickel-copper and copper-nickel alloys, permanent magnet alloys, and other nickel alloys.

TABLE 3
CONSUMPTION AND ENDING STOCKS OF PURCHASED SECONDARY NICKEL, BY USE 1/

(Metric tons, nickel content)

Period	Consumption			Stocks		
	Ferrous scrap 2/	Nonferrous scrap 3/	Total scrap	Ferrous scrap 2/	Nonferrous scrap 3/	Total scrap
1997:						
February	3,880	806	4,690	3,290	115	3,400 r/
March	4,250	1,010	5,260	4,090	106	4,190
April	5,260	791	6,050 r/	3,820	114	3,940
May	4,740 r/	843	5,590	3,790	115	3,900
June	4,760 r/	757	5,520	3,900	113	4,020
July	5,190	826	6,020	3,380	116	3,500
August	3,780	762	4,540	3,930	115	4,040
September	3,910	776	4,690	3,710	110	3,820
October	4,440	847	5,290	4,030	118	4,150
November	4,070	788	4,860	4,090	113	4,200
December	4,380	821 r/	5,200 r/	4,050	113 r/	4,160
January-December	53,500	9,880	63,400	XX	XX	XX
1998:						
January	5,180	812 r/	5,990	3,690 r/	118 r/	3,800
February	4,400	769	5,170	3,730	129	3,860

r/ Revised. XX Not applicable.

1/ Data are rounded to three significant digits; may not add to totals shown.

2/ Nickel content is calculated from an average nickel content and the reported gross weight of scrap.

3/ Combined consumption and stocks of aluminum-base, copper-base, and nickel-base scrap.

TABLE 4
U.S. IMPORTS FOR CONSUMPTION OF NICKEL, BY COUNTRY 1/

(Metric tons, nickel content 2/)

Period and country of origin	Cathodes, pellets, and briquets	Powder and flakes	Ferro- nickel	Metal- lurgical- grade oxide	Waste and scrap	Stainless steel scrap	Chemicals	Total 3/	Total year to date 4/	Wrought nickel
1997:										
January	7,640	954	1,180	111	364	263	265	10,800	10,800	57
February	9,310	945	1,180	395	696	392	242	13,200	23,900	53
March	14,500	1,130	1,070	277	544	342	198	18,100	42,000	73
April	7,920	948	1,050	347	572	433	294	11,600	53,600	78
May	13,900	838	1,420	217	370	469	297	17,500	71,100	99
June	5,240	625	1,240	49	482	511	256	8,400	79,500	40
July	8,190	520	1,280	10	643	529	271	11,400	90,900	82
August	10,800	752	956	172	334	359	230	13,600	105,000	111
September	11,100	907	1,090	90	455	378	205	14,200	119,000	84
October	8,590	966	942	21	559	403	437	11,900	131,000	71
November	9,310	999	1,090	36	595	354	240	12,600	143,000	42
December	11,800	884	1,020	217	583	372	288	15,200	158,000	182
January-December	118,000	10,500	13,500	1,940	6,200	4,810	3,220	158,000	XX	972
1998:										
January:										
Australia	1,570	80	--	--	21	--	--	1,670	1,670	--
Brazil	200	--	55	--	7	2	--	264	264	--
Canada	5,210	579	--	--	69	157	22	6,040	6,040	--
Colombia	--	--	391	--	--	--	--	391	391	--
Dominican Republic	--	--	839	--	--	1	--	839	839	--
Finland	182	95	--	--	--	--	69	346	346	--
France	79	--	369	5/	119	--	9	576	576	(6/)
Germany	--	1	--	--	42	(6/)	6	50	50	72
Japan	--	5	--	--	14	4	42	65	65	10
Mexico	--	--	--	--	21	168	4	192	192	--
New Caledonia	--	--	--	--	--	--	--	--	--	--
Norway	2,920	--	--	--	--	--	--	2,920	2,920	--
Russia	3,360	--	--	--	--	--	--	3,360	3,360	--
South Africa	56	--	5	--	--	--	--	61	61	--
United Kingdom	202	5	--	--	124	--	22	353	353	(6/)
Zimbabwe	98	--	--	--	--	--	--	98	98	--
Other	36	5/	37	91	5/	36	5	117	323	(6/)
Total	13,900	802	1,750	--	453	337	291	17,500	17,500	82

XX Not applicable.

1/ Data are rounded to three significant digits; may not add to totals shown.

2/ The nickel contents are assumed to be as follows: metallurgical-grade oxide (77%), waste and scrap (50%), and stainless steel scrap (7.5%). The chemical category includes chlorides (25%), sulfates (22%), and other salts (22%), supported catalysts (22%), and oxide, sesquioxide and hydroxide (65%).

3/ Excludes wrought nickel.

4/ May include revisions for prior months.

5/ All or part of these data have been referred to the Bureau of the Census for verification.

6/ Less than 1/2 unit.

Source: Bureau of the Census.

TABLE 5
U.S. EXPORTS OF NICKEL, BY COUNTRY 1/

(Metric tons, nickel content 2/)

Period and country of destination	Cathodes, pellets, and briquets	Powder and flakes	Ferro- nickel	Metal- lurgical- grade oxide	Waste and scrap	Stainless steel scrap	Chemicals	Total 3/	Total year to date 4/	Wrought nickel
1997:										
January	20	72	442	513	862	1,740	455	4,100	4,100	56
February	39	114	416	134	1,000	1,690	515	3,920	8,020	89
March	26	93	616	172	1,210	1,280	488	3,880	11,900	61
April	33	84	725	148	1,480	2,740	684	5,890	17,800	158
May	29	102	913	124	1,290	1,610	439	4,510	22,300	58
June	52	97	900	172	963	3,540	258	5,990	28,300	56
July	19	55	661	165	676	2,970	428	4,970	33,300	109
August	28	63	491	103	726	3,210	676	5,300	38,600	50
September	211 5/	39	344	168	1,190	2,660	421	5,030	43,600	79
October	1	54	812	103	956	2,690	312	4,930	48,500	63
November	6	110	258	104	1,160	1,660	586	3,890	52,400	75
December	115	35	373	320	909	1,960	433	4,140	56,500	38
January-December	578	919	6,950	2,230	12,400	27,700	5,700	56,500	XX	893
1998:										
January:										
Australia	--	(6/)	--	--	--	--	(6/)	(6/)	(6/)	--
Belgium	--	12	--	(6/)	--	--	6	17	17	--
Canada	(6/)	15	--	--	607	242	40	905	905	1
Germany	--	2	--	(6/)	49	--	--	51	51	--
India	--	--	263	--	--	21	(6/)	284	284	--
Italy	--	1	--	--	--	1	--	2	2	--
Japan	--	7	82	--	39	233	10	370	370	(6/)
Korea, Republic of	--	3	--	--	--	388	2	393	393	--
Mexico	88	11	1	24	1	3	10	138	138	1
Netherlands	--	1	--	--	--	--	4	5	5	--
South Africa	--	(6/)	--	64	9	109	3	185	185	--
Spain	--	(6/)	--	--	--	451	--	451	451	--
Sweden	--	1	--	--	247	19	--	267	267	--
Taiwan	--	3	42	--	--	29	5	79	79	--
United Kingdom	--	6	--	--	--	5	9	20	20	19
Other	9	12	--	(6/)	2	151	172	348	348	8
Total	98	74	388	89	953	1,650	261	3,520	3,520	29

XX Not applicable.

1/ Data are rounded to three significant digits; may not add to totals shown.

2/ The nickel contents are assumed to be as follows: metallurgical-grade oxide (77%), waste and scrap (50%), and stainless steel scrap (7.5%). The chemical category includes chlorides (25%), sulfates (22%), and other salts (22%), supported catalysts (22%), and oxide, sesquioxide and hydroxide (65%).

3/ Excludes wrought nickel.

4/ May include revisions for prior months.

5/ All or part of these data have been referred to the Bureau of the Census for verification.

6/ Less than 1/2 unit.

Source: Bureau of the Census.

TABLE 6
U.S. IMPORTS FOR CONSUMPTION OF NICKEL ALLOYS, BY COUNTRY 1/

(Metric tons, gross weight)

Period and country of origin	Unwrought alloyed ingot	Bars, rods, and profiles	Wire	Plates and sheets	Foil	Tubes and pipes	Other alloyed articles	Total	Total year to date 2/
1997:									
January	208	132	196	98	--	100	108	841	841
February	181	202	190	149	--	96	107	926	1,770
March	265	184	266	90	(3/)	117	52	974	2,740
April	234	186	283	139	--	298	61	1,200	3,940
May	457	148	290	190	1	103	56	1,250	5,190
June	431	190	346	150	3	133	68	1,320	6,510
July	463	224	283	247	(3/)	186	66	1,470	7,980
August	336	216	251	143	(3/)	363	36	1,350	9,320
September	266	183	232	174	1	202	93	1,150	10,500
October	346	132	318	186	(3/)	120	47	1,150	11,600
November	252	129	299	198	(3/)	182	63	1,120	12,700
December	289	228	331	253	--	86	44	1,230	14,000
January-December	3,730	2,150	3,290	2,020	5	1,990	801	14,000	XX
1998:									
January:									
Australia	143	--	--	--	--	--	(3/)	143	143
Belgium	7	--	--	--	--	--	--	7	7
Canada	(3/)	11	11	2	--	7	4	34	34
France	--	--	56	31	--	27	1	115	115
Germany	1	129	87	104	--	48	3	371	371
Italy	--	19	--	--	--	6	--	26	26
Japan	1	--	2	5	--	24	2	33	33
Mexico	--	--	2	--	--	--	(3/)	2	2
Netherlands	--	--	--	--	--	--	8	8	8
South Africa	14	--	--	--	--	--	--	14	14
Sweden	--	--	88	2	--	4	--	93	93
United Kingdom	28	10	(3/)	(3/)	--	13	2	54	54
Other	--	25	1	4	--	(3/)	12	41	41
Total	194	194	247	147	--	128	32	941	941

XX Not applicable.

1/ Data are rounded to three significant digits; may not add to totals shown.

2/ May include revisions for prior months.

3/ Less than 1/2 unit.

Source: Bureau of the Census.

TABLE 7
U.S. EXPORTS OF NICKEL ALLOYS, BY COUNTRY 1/

(Metric tons, gross weight)

Period and country of destination	Unwrought alloyed ingot	Bars, rods, and profiles	Wire	Plates and sheets	Foil	Tubes and pipes	Other alloyed articles	Total 2/	Total year to date 2/
1997:									
January	541	320	115	838	10	91	120	2,030	2,030
February	641	222	137	554	20	136	180	1,890	3,930
March	425	334	152	845	23	99	597	2,480	6,400
April	344	225	224	649	14	90	374	1,920	8,320
May	262	290	212	810	15	81	146	1,820	10,100
June	357	319	195	781	11	131	686	2,480	12,600
July	293	193	229	525	19	114	439	1,810	14,400
August	320	246	269	699	8	131	239	1,910	16,300
September	269	280	221	714	26	103	154	1,770	18,100
October	488	348	220	736	21	104	195	2,110	20,200
November	425	339	175	718	14	136	455	2,260	22,500
December	547	490	193	915	4	58	423	2,630	25,100
January-December	4,910	3,610	2,340	8,780	185	1,270	4,010	25,100	XX
1998:									
January:									
Australia	(3/)	--	1	179	--	3	2	185	185
Belgium	4	1	1	(3/)	--	1	--	6	6
Canada	2	47	34	43	4	21	81	232	232
France	206	21	1	14	(3/)	(3/)	55	296	296
Germany	4	21	13	15	--	(3/)	5	58	58
India	--	4	--	--	--	(3/)	(3/)	4	4
Ireland	--	(3/)	16	--	--	--	(3/)	16	16
Italy	(3/)	5	6	107	--	1	--	119	119
Japan	14	20	5	140	--	--	1	180	180
Korea, Republic of	--	2	(3/)	21	--	1	6	31	31
Mexico	2	1	101	31	--	30	4	169	169
Netherlands	49	47	(3/)	19	--	--	1	116	116
Singapore	1	4	1	2	--	(3/)	2	9	9
Spain	--	(3/)	(3/)	--	--	1	(3/)	1	1
Sweden	(3/)	--	1	4	2	(3/)	(3/)	7	7
Switzerland	(3/)	3	--	(3/)	--	(3/)	2	5	5
Taiwan	2	1	1	20	--	(3/)	28	52	52
United Kingdom	54	187	36	201	(3/)	3	12	493	493
Other	36	11	5	33	(3/)	12	49	146	146
Total	374	375	222	829	6	73	246	2,130	2,130

XX Not applicable.

1/ Data are rounded to three significant digits; may not add to totals shown.

2/ May include revisions for prior months.

3/ Less than 1/2 unit.

Source: Bureau of the Census.

TABLE 8
NICKEL CONSUMPTION IN CAST AND WROUGHT PRODUCTS

	Percent	
	Wrought	Cast
February 1998:		
Stainless and heat resisting steels	99	1
Alloy steels	97	3
Superalloys	79	21
Copper-nickel alloys	100	(1/)
Other nickel-base alloys	100	(1/)

1/ Less than 1/2 unit.

TABLE 9
NICKEL PRICES

Date	Cathode NY Dealer \$/lb.	LME Cash \$/t	LME Cash \$/lb.	18/8 Stainless steel scrap Pittsburgh \$/long ton(gw)
1998:				
Average for month of:				
February	2.542	5,386.875	2.443	685
March	2.557	5,395.795	2.447	683
Average for week ending:				
February 6	2.54-2.60	5,394.500	2.447	680-690
February 13	2.62-2.69	5,542.000	2.514	680-690
February 20	2.54-2.66	5,378.500	2.440	680-690
February 27	2.47-2.59	5,232.500	2.373	680-690
March 6	2.51-2.60	5,317.000	2.412	675-690
March 13	2.53-2.57	5,357.000	2.430	675-690
March 20	2.58-2.65	5,418.500	2.458	675-690
March 27	2.61-2.65	5,460.000	2.477	675-690
April 3	2.58-2.66	5,420.500	2.459	675-690

Sources: Platt's Metals Week and American Metal Market.